













ICARE 2017 – AN INTERNATIONAL MEETING OF LEADING PARTICIPANTS IN AIRBORNE RESEARCH FOR THE ENVIRONMENT



As the consequences of climate change for ecosystems and populations become increasingly visible, research in the environmental and geosciences continues to play a central role in the development of forecasting and mitigation strategies. Airborne measurements using sophisticated aircraft and instruments play a leading role in this research, contributing to our understanding of processes in the atmosphere, oceans and land surface. The 2nd International Conference on Airborne Research for the Environment (ICARE 2017) brings together key players in the airborne research community, including expert scientists, aircraft operators and instrument developers. The conference is organized by EUFAR, the European Facility for Airborne Research which links the leading facilities and scientists in Europe, with input from the airborne research community in the USA, including NASA, NCAR (National Center for Atmospheric Research) and the National Science Foundation. ICARE 2017 will be hosted at the German Aerospace Center (DLR), in Oberpfaffenhofen near Munich, from 10 to 13 July 2017. The 4-day event will enable participants from across Europe, the USA and beyond to exchange experience, to review future scientific user requirements and to consider development strategies for airborne research infrastructure to help meet these requirements.



DEVELOPING THE INFRASTRUCTURE TO MEET FUTURE SCIENTIFIC CHALLENGES

The objective of this 4-day conference will be to share and debate at a European and international level in order to reach optimised solutions to develop the airborne research infrastructures that will be required to address future scientific challenges.

Who will meet at the ICARE 2017 conference?

The conference will bring together both operators and users of research aircraft working in support of a broad range of environmental research interests together with representatives of relevant funding agencies and equipement suppliers.

What to expect at the ICARE 2017 conference?

The conference will review the scientific drivers for future airborne measurements across a broad range of topics in environmental and geo-sciences. There will also be sessions devoted to a range of technical and support issues that are concerned with the development of the aircraft operators' ability to meet future demands.

EUFAR KEY POINTS

- > 19 equipped aircraft and 5 remote sensing instruments opened to transnational access
- > 4 EUFAR projects funded by the EU since 2000
- > 124 measurement projects funded by EUFAR
- > 1 summer school per year organised by EUFAR















The conference will consist of both plenary and parallel sessions with invited keynote speakers for the main topics. We expect that a number of European research aircraft, including some that form part of the EUFAR Transnational Access programme, will be exhibited during the conference and there will be some time set aside for tours and viewings.

TOPICS OF THE SESSIONS

- - Airborne support to future satellite missions Polar research Atmospheric science Oceans, lakes and inshore waters

2) Organisation of future field campaigns

- Access to airspace for measurement flights
 Diplomatic and security restrictions
 Coordination of multi-aircraft campaigns through separate funding streams
- 3) Developing future airborne science capabilities and platforms

 - Access to airspace for measurement flights Diplomatic and security restrictions Coordination of multi-aircraft campaigns through separate funding streams Synergy of manned aircraft and UAVs

- Perconfilation of lightweight / low-power instruments

 Unattended operation

 Exploitation of real-time data for science planning,
 education and public engagement

 Transferability between aircraft

 Data formats and exchange facilitating collaboration

 Development of protocols for the conduct of airborne intercomparisons

ABOUT DLR

The German Aerospace Center (DLR) is the national aeronautics and space research centre of the Federal Republic of Germany. Its extensive research and development work in aeronautics, space, energy, transport and security is integrated into national and international cooperative ventures. In addition to its own research, as Germany's space agency, DLR has been given responsibility by the federal government for the planning and implementation of the German space programme. DLR is also the umbrella organisation for the nation's largest project management agency.

DLR has approximately 8000 employees at 20 locations in Germany and also has offices in Brussels, Paris, Tokyo and Washington D.C.

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IMPORTANT DATES

From 10 to 13 July 2017

- > Conference: Monday, 10 July (starting at 10:00) to Thursday, 13 July (ending at 18:00)
- > Poster Session: Tuesday, 11 July
- > Aircraft Exhibition Wednesday, 12 July, Afternoon

PLEASE VISIT

- > ICARE 2017 CONFERENCE
- > DLR Germany

ABOUT EUFAR

Created in 2000, EUFAR was born out of the necessity to create a central network for the airborne research community in Europe with the principal aim of supporting scientists, by granting them access to research aircraft and instruments otherwise not accessible in their home countries.

In this way, scientists all over Europe can have an equal chance to carry out various atmospheric and Earth observation measurements on board research aircraft. In essence, EUFAR links scientists with operators of research facilities, and financially supports this collaboration by providing funding for flight hours as well as for travel and subsistence during campaigns.

With time EUFAR has grown, introducing new activities and objectives to place itself as the unique network and portal of airborne research for the environmental and geosciences in Europe. From organising summer schools, expert workshops, and serving as an interactive and dynamic hub of information, to maintaining a central data archive, and developing tools and standards to collect, process and analysis data, EUFAR continues to improve the operational environment for conducting airborne research. As a follow-up to the ICARE conference held in Toulouse, France, in October 2010, this will be the second edition of the conference bringing together delegates from both atmospheric science and earth observation disciplines.